

CLAIMS

What is claimed is:

1. A hand-held music player for use in conjunction with radios, comprising:
 - a casing;
 - a receiver socket on said casing through which digital audio data is received;
 - a digital-to-analog audio converter housed within said casing;
 - a first transfer socket on said casing through which a song is transferred to a radio transmitter;
 - a second transfer socket on said casing through which meta-data for the song is transferred to the radio transmitter; and
 - a dial on said casing for selecting a song for playback.
2. The hand-held music player of claim 1 wherein said receiver socket also receives control commands for the music player.
3. The hand-held music player of claim 1 further comprising a stereo mini-jack connector for inserting a headphone.
4. The hand-held music player of claim 1 further comprising an LED display.
5. The hand-held music player of claim 1 further comprising an LCD display.
6. The hand-held music player of claim 1 wherein said receiver socket comprises a USB socket.

7. The hand-held music player of claim 6 wherein said USB socket is a USB 1.1 socket.
8. The hand-held music player of claim 6 wherein said USB socket is a USB 2.0 socket.
9. The hand-held music player of claim 6 wherein said USB socket is a USB 2.0 OTG socket.
10. The hand-held music player of claim 1 wherein the radio transmitter is an FM or an RF transmitter.
11. The hand-held music player of claim 10 wherein the radio transmitter further comprises a radio data system (RDS) transmitter.
12. The hand-held music player of claim 11 wherein the meta-data for the song is transferred through said second transfer socket, for transmission by the radio transmitter as RDS data.
13. The hand-held music player of claim 12 wherein the meta-data includes the name of the song currently being transmitted.
14. The hand-held music player of claim 11 wherein information about the hand-held digital music player is transferred through said second transfer socket to the radio transmitter, for transmission by the radio transmitter as RDS data.

15. The hand-held music player of claim 14 wherein the information about the hand-held digital music player includes an identification number.
16. The hand-held music player of claim 10 further comprising a frequency selector, for selecting a broadcast frequency.
17. The hand-held music player of claim 16 wherein said frequency selector comprises a tuner for scanning radio frequencies.
18. A hand-held music player for use in conjunction with radios, comprising:
 - a casing;
 - a receiver socket on said casing through which digital audio data is received;
 - a digital-to-analog audio converter housed within said casing;
 - a radio transmitter for transmitting a song;
 - an RDS transmitter for transmitting meta-data for the song; and
 - a dial on said casing for selecting a song for playback.
19. A hand-held video player for use in conjunction with televisions, comprising:
 - a casing;
 - a receiver socket on said casing through which digital video data is received;
 - a digital-to-analog video converter housed within said casing;
 - a first transfer socket on said casing through which a video is transferred to a television transmitter;
 - a second transfer socket on said casing through which meta-data for the video is transferred to the television transmitter; and

a dial on said casing for selecting a video for playback.

20. A hand-held video player for use in conjunction with televisions, comprising:
 - a casing;
 - a receiver socket on said casing through which digital video data is received;
 - a digital-to-analog video converter housed within said casing;
 - a television transmitter for transmitting a video and meta-data for the video;and

a dial on said casing for selecting a video for playback.
21. A hand-held container for audio with associated meta-data, comprising:
 - a casing;
 - a memory housed within said casing storing digital audio with associated meta-data;
 - a digital-to-analog audio converter housed within said casing; and
 - a transfer socket on said casing through which a song and meta-data associated therewith is transferred to a radio transmitter.
22. The hand-held container of claim 21 wherein the radio transmitter comprises an FM or an RF transmitter, the FM or RF transmitter comprising a radio data system (RDS) transmitter, and wherein the RDS transmitter transmits the meta-data associated with a song concurrently transmitted by the FM or RF transmitter.
23. The hand-held container of claim 21 wherein the meta-data includes data about a song currently being transferred.

24. The hand-held container of claim 22 wherein the meta-data includes data about the hand-held container.
25. The hand-held digital container of claim 21 further comprising a frequency selector, for selecting a broadcast frequency.
26. The hand-held digital container of claim 25 wherein said frequency selector comprises a tuner for scanning radio frequencies.
27. A hand-held container for video with associated meta-data, comprising:
 - a casing;
 - a memory housed within said casing storing digital video with associated meta-data;
 - a digital-to-analog video converter housed within said casing; and
 - a transfer socket on said casing through which a video and meta-data associated therewith is transferred to a television.
28. A digital music library builder comprising:
 - a casing;
 - a receiver socket on said casing through which analog audio is received;
 - an analog-to-digital converter housed within said casing for converting analog audio into digital audio;
 - a meta-data identifier housed within said casing for identifying meta-data for a song; and

a database manager housed within said casing for associating the identified meta-data with the song, within a digital music library.

29. The digital music library builder of claim 28 wherein said meta-data identifier matches the song within a database of song meta-data.

30. The digital music library builder of claim 29 wherein said meta-data identifier uses a digital fingerprint of the song to key into the database of song meta-data.

31. The digital music library builder of claim 28 further comprising a song database builder for building a database of song meta-data indexed by digital fingerprints of songs.

32. The digital music library builder of claim 28 wherein said meta-data identifier accepts manually entered input.

33. The digital music library builder of claim 28 wherein said meta-data identifier extracts meta-data from voice input.

34. The digital music library builder of claim 28 wherein said meta-data identifier extracts meta-data from video input.

35. The digital music library builder of claim 28 wherein said meta-data identifier extracts meta-data from at least one Internet web page.

36. The digital music library builder of claim 28 wherein said meta-data identifier extracts meta-data from an electronic music guide.
37. A method for transferring audio with associated meta-data, comprising:
 - converting digital audio to analog audio; and
 - transferring an analog song and meta-data associated therewith to a radio transmitter.
38. The method of claim 37 wherein the radio transmitter is an FM or an RF transmitter, the method further comprising transferring the meta-data as radio data system (RDS) data.
39. The method of claim 37 wherein the meta-data includes data about a song currently being transferred.
40. The method of claim 37 further comprising selecting a broadcast frequency.
41. The method of claim 40 wherein said selecting further comprises scanning radio frequencies.
42. A method for building a digital music library builder comprising:
 - receiving analog audio;
 - converting the analog audio to digital audio;
 - identifying meta-data for a song; and

associating the identified meta-data with the song, within a digital music library.

43. The method of claim 42 wherein said identifying matches the song within a database of song meta-data.

44. The method of claim 43 wherein said identifying uses a digital fingerprint of the song to key into the database of song meta-data.

45. The method of claim 42 further comprising building a database of song meta-data indexed by digital fingerprints of songs.

46. The method of claim 42 wherein said identifying uses manually entered input.

47. The method of claim 42 wherein said identifying extracts meta-data from voice input.

48. The method of claim 42 wherein said identifying extracts meta-data from video input.

49. The method of claim 42 wherein said identifying extracts meta-data from at least one Internet web page.

50. The method of claim 42 wherein said identifying extracts meta-data from an electronic music guide.

51. A computer-readable storage medium storing program code for causing a device to perform the steps of:

- converting digital audio to analog audio; and
- transmitting an analog song and meta-data associated therewith to a radio transmitter.

52. A computer-readable storage medium storing program code for causing a device to perform the steps of:

- receiving analog audio;
- converting the analog audio to digital audio;
- identifying meta-data for a song; and
- associating the identified meta-data with the song, within a digital music library.

53. A device for transferring audio to a radio transmitter, comprising:

- a mini-jack through which an analog song is transferred to an FM radio transmitter, for broadcast at a specific FM frequency; and
- a USB socket through which digital meta-data for the song is transferred to a radio data system (RDS), which is a sub-carrier of the specific FM frequency.

54. A method for transferring audio to a radio transmitter, comprising:

- transferring an analog song to an FM radio transmitter, for broadcast at a specific FM frequency; and
- transferring digital meta-data for the song to a radio data system (RDS), which is a sub-carrier of the specific FM frequency.

55. A computer-readable storage medium storing program code for causing a device to perform the steps of:

transferring an analog song to an FM radio transmitter, for broadcast at a specific FM frequency; and

transferring digital meta-data for the song to a radio data system (RDS), which is a sub-carrier of the specific FM frequency.